REMARKS

Below, the applicant's comments are preceded by related remarks of the examiner set forth in small bold font.

Claims 19, 28, 32, 35, 40, and 43-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plangger et al. 4,582,434 (Plangger) in view of Clarke US 6,337,604 (Clarke) and Klughart US 5,546,055 (Klughart '055).

Figures 1 and 2 of Plangger provides for the claimed method steps and apparatus structure that includes the step of generating a system time signal using a real time clock circuit composed of at least element 104 that has a tunable oscillator composed of at least element 98 for adjusting an operation frequency of the real time clock circuit. The system time signal is internal to the processor 80 (See column 7). This processor receives a reference time signal over a network. The particular network that Plangger uses happens to be the WWV network. The examiner must give the broadest reasonable interpretation to the claimed invention consistent with the specification. It is accordingly noted that applicant has not defined the term "network" in the specification and thus the common everyday definition of this term applies. Plangger clearly describes in column 8 how the variable capacitance element 98 of the tunable oscillator is controlled so as to adjust the tunable oscillator in order to increase or decrease the operating frequency of the real time clock circuit in response to a difference between the system time signal and the reference time signal. Plangger utilizes a single adjustable capacitor namely a varactor diode 98 to vary the capacitance of the tunable oscillator that generates the real time clock signal used by the processor. Claim 19 now recites a set of control signals to modify the selection of a set of capacitors within a capacitor bank so as to from a variable capacitor used in the real time clock circuit that in turn whose variations correlates to the changes in operation frequency of the real time clock circuit. As evidenced by Clarke, one art recognized variable capacitance structure that is used to control the frequency of an oscillator that is used as a clock is the plurality of independently selectable on-chip capacitors (Note elements C1-C6 and the corresponding control signal D1-D5.).

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to have replaced the variable capacitor with one that is composed of a plurality of capacitors each switched by a control circuit like that of Clarke given the art recognized equivalence of these two capacitor arrangements as taught by Clarke.

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Claims 19, 28, 29, 30-32, 35-40 and 43-44 are rejected under 35 U.S.C. 103 (a)as being unpatentable over Plangger et al. 4,582,434 (Plangger) in view of Clarke US 6,337,604 (Clarke) and Klughart US 5,8701,411 (Klughart '411) and Horn "Basic Electronics Theory" 4th Edition pp 377-378, pp 418-426 and pp 454-465.

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Horn teaches that buffers are used to ensure that the output drive is sufficient to drive the devices on the output thereof.

Thus it would have been obvious to one of ordinary skill in the art at the

time the invention was made to utilize a buffers between the transmission gate switches and the memory registers so as to insure that there is sufficient drive for the transmission gate switches as taught by Horn.

Clarke is likewise silent on the use of filtered power signals to power the buffer circuitry. Buffer circuitry requires a power supply as is well known in the art so that it can provide the sufficient drive as noted above. Horn teaches that it is commonplace to utilize filtered power supplies, in particular note pages 456 and 460 to power electronic devices. This as Horn recognizes reduces "ripple", i.e. noise, or voltage fluctuations that then in turn causes less vacillations in the devices power by such power supplies.

Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a filtered power supply to power the buffers made obvious above so as to reduce the introduction of noise in the system as is taught by Horn.

The combination Plangger, Clarke, and Klughart '055, or the combination of Plangger, Clarke, Klughart '411, and Horn, would not have made obvious amended claim 19 because there would not have been a suggestion or motivation to combine either Plangger and Clarke, or Plangger and Klughart '411.

Plangger discloses a clock that is "periodically updated by a received reference time signal" (col. 2, lines 20-21). Plangger uses an oscillator circuit 90 that includes a varactor diode 98, "whose capacitance is inversely related to the reverse bias voltage applied across the varactor diode" (col. 8, lines 39-42).

The examiner appears to contend that, because Clarke discloses a plurality of capacitors that can be independently selected to provide a variable amount of capacitance, it would have been obvious to replace the varactor diode of Plangger with "one that is composed of a plurality of capacitors each switched by a control circuit like that of Clarke given the art recognized equivalence of these two capacitor arrangements as taught by Clarke." The applicant disagrees.

The prior art must suggest the desirability of the claimed invention. See MPEP 2143.01. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggest the desirability of the combination. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990).

Neither Plangger nor Clarke discloses or suggests that the plurality of capacitors of Clarke are equivalent to the reversely biased varactor diode of Plangger, or that it is desirable to replace the varactor diode of Plangger with the plurality of capacitors of Clarke. The varactor

diode of Plangger is a discrete component, whereas the plurality of capacitors of Clarke are on-chip components. The varactor diode is one component, whereas the plurality of capacitors (and associated switches) require multiple components. The capacitance of the varactor diode is adjusted by adjusting the reverse bias voltage applied to the varactor diode, whereas the capacitance of the plurality of capacitors is adjusted by controlling switches to change the selection of capacitors. Using the capacitors of Clarke in the clock circuit of Plangger would require more complex circuitry and more components.

Moreover, Clarke teaches that "[t]he frequency measurement and setting of the trim value may be iterated until the output signal has the desired frequency. The trim value is then permanently held in memory in the baseband processor 23, and recalled to the trim register 21 on power up to ensure the correct frequency for the life of the oscillator." (col. 3, lines 13-18) Thus, Clarke teaches a device that outputs a fixed frequency after it has been adjusted to the desired frequency. This teaches away from Plangger, which discloses a clock that is periodically updated by a reference time signal.

For the reasons above, it would not have been obvious to a person skilled in the art to replace the varactor diode of Plangger with the plurality of capacitors of Clarke.

Klughart '411, similar to Clarke, merely discloses a plurality of selectable MOSFET capacitors, and does not suggest that the MOSFET capacitors are equivalent to the varactor diode of Plangger, or that it would be desirable to replace the varactor diode of Plangger with the MOSFET capacitors of Klughart '411.

What is missing in Plangger and Clarke, or Plangger and Klughart '411, is also not disclosed in Horn (which merely shows low pass filters and voltage dividers) or Klughart '055 (which merely shows drain-source connected n-type MOSFET capacitors).

Therefore, claim 19 would not have been made obvious by either the combination of Plangger, Clarke, and Klughart '055, or the combination of Plangger, Clarke, Klughart '411, and Horn.

Claims 35 and 47 are patentable for at least similar reasons as claim 19.

The dependent claims are patentable for at least the same reasons as the claims on which they depend.

Cancelled and amended claims have been cancelled and amended, respectively, without prejudice. The applicant reserves the right to pursue those claims in a continuing application.

Any circumstance in which the applicant has addressed certain comments of the examiner does not mean that the applicant concedes other comments of the examiner. Any circumstance in which the applicant has made arguments for the patentability of some claims does not mean that there are not other good reasons for patentability of those claims and other claims. Any circumstance in which the applicant has amended a claim does not mean that the applicant concedes any of the examiner's positions with respect to that claim or other claims.

No fee is due. Please apply any charges or credits to deposit account 06-1050, referencing attorney docket 10559-650002.

Respectfully submitted,

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** See attached document certifying that Rex Huang has limited recognition to practice before the U.S. Patent and Trademark Office under 37 CFR § 10.9(b).*